

BACKGROUND

- Esophageal adenocarcinoma (EAC) is the fastest growing esophageal cancer subty the United States¹.
- National guidelines now recommend endoscopic intervention as preferred the over surgery as first line treatment for T1aNOMO EAC 2,3 .
- Socioeconomic status (SES) has been link disparities in esophageal cancer related however, data on outcomes based on SE limited.

STUDY AIMS

 To assess how socioeconomic status inf initial treatment decisions and survival outcomes in patients with T1a esophage adenocarcinoma.

METHODS

- 1526 patients diagnosed with primary T1aN0M0 esophageal cancer from 2004 via the November 2018 submission of the Surveillance, Epidemiology, and End-Res (SEER) database were included.
- Patients were subdivided in three socioeconomic tertiles, based on media household income of county of residence
- Rates of endoscopic and surgical treatm and 5-year overall survival, cancer speci mortality, and non-cancer specific morta were calculated using R-studio.

Lower Socioeconomic Status is Associated with Higher Mortality in T1a Esophageal Adenocarcinoma

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| | Tab | ole 1: Der | mograp | hic and | Tumo | r Charact | eristics k | by Incom | 9 |
|----|--|--|---|---|--|---|---|---|-----------------------|
| | | | | | | | | | |
| 1 | | | | 0 | verall | T1 | T2 | Т3 | p-valu |
| | n | | | 1 | 1526 | 505 | 515 | 506 | |
| | | | | | | | 66.35 | 66.83 | |
| | Age at diagnos | Age at diagnosis (mean (SD)) | | | 5 (10.19) | 65.26 (9.54) | (10.36) | (10.58) | 0.043 |
| Y | Sex = Male (% | Sex = Male (%) | | | 7 (86.3) | 440 (87.1) | 439 (85.2) | 438 (86.6) | 0.667 |
| | White Race | White Race | | | 1 (96.4) | 487 (96.4) | 496 (96.3) | 488 (96.4) | |
| | Median house | Median household income (dollars) | | | | 45.663 | 59.455 | 77.379 | |
| | (mean (SD)) | (mean (SD)) | | | 4 (1447) | (6662) | (3351) | (8359) | <0.00 |
| | | | | | | | | | |
| 0 | % with Bachel | or's degree (| mean (SD)) | 30.49 | (1002.35) | 21.46 (7.03) | 30.03 (5.86) | 39.98 (6.87) | <0.00 |
| ł | % persons <15 ((مد)) | 50% of pover | ty line (mea | in | 7 (7 69) | 30 24 (6.92) | 23 67 (4 62) | 16 20 (2 27) | |
| , | | | | 23.3 | (7.00) | 50.24 (0.82) | 23.07 (4.02) | 10.20 (5.57) | <0.00 |
| | % Unemploye | d (mean (SD) |)) | 9.66 | 6 (2.78) | 10.79 (3.73) | 9.79 (2.17) | 8.38 (1.32) | <0.00 |
| | % Current Sm | oker (mean (| SD)) | 18.4 | 7 (5.57) | 23.73 (4.57) | 16.58 (4.12) | 15.14 (3.63) | <0.00 |
| | Crade (9/) | | | | | | | | 0 1 2 0 |
| | Well differentia | ted: Grade I | | 250 | 9 (17 0) | 78 (15 4) | 94 (18 3) | 87 (17 2) | 0.450 |
| es | Moderately diff | Ferentiated: Grad | de II | 52 | 2 (24 2) | 181 (35.8) | <u> </u> | 165 (32 6) | |
| | Poorly different | iated: Grade III | | 204 | 4 (13 4) | 69 (13 7) | 66 (12 8) | 69 (13 6) | |
| | Undifferentiate | d: ananlastic: Gi | rade IV | 1 | <u>- (+3: -)</u> 5 (1 0) | 9 (1.8) | 2 (0 4) | 4 (0.8) | |
| | Unknown | Unknown | | | 5 (34.4) | 168 (33.3) | 176 (34.2) | 181 (35.8) | |
| | Tumor size in | mm (mean (S | SD)) | 45.0 | 0 (10 01) | | | | |
| | | | | 157 | $() (\prec \prec)$ | 1592113921 | | 14 10 (17 97) | 0 255 |
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- higher income groups.
- in higher income tertiles.
- treatment for their cancer

- involvement.

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RESULTS

The lowest median household income (MHI) group had a higher percentage of Black patients, lower percentage of Asian patients, higher proportion of smokers, higher unemployment rate, lower education level, compared to

Patients within the lowest median household income group experienced higher cancer-specific mortality at 2years (p<0.01) and 5-years (p<0.02) and lower overall survival at 2 and 5-years (p<0.01) as compared to patients

Patients within the higher income tertile were more likely to receive endoscopic intervention (p<0.001) as primary

CONCLUSIONS

Lower median household income is associated with significantly higher rates of cancer-specific mortality and lower rates of endoscopic intervention to treat patients with T1a esophageal adenocarcinoma without lymph node

• Population-based strategies aimed at increasing access to screening, improving access to high-volume centers, and identifying other possible etiologies for these socioeconomic disparities are paramount to improving patient outcomes in early esophageal cancer.

References

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